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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/718,283   | 11/19/2003  | Bo Huang             | 10559-886001        | 1064             |
| 20985  | 7590        | 08/30/2006           | [REDACTED]          | EXAMINER         |
| FISH & RICHARDSON, PC<br>P.O. BOX 1022<br>MINNEAPOLIS, MN 55440-1022 |             |                      | DARE, RYAN A        |                  |
|  |             |                      | [REDACTED]          | ART UNIT         |
|  |             |                      |                     | PAPER NUMBER     |
|  |             |                      | 2186                |                  |

DATE MAILED: 08/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|   |                        |                     |
|---|------------------------|---------------------|
| <b>Advisory Action<br/>Before the Filing of an Appeal Brief</b> | <b>Application No.</b> | <b>Applicant(s)</b> |
|   | 10/718,283             | HUANG ET AL.        |
|   | <b>Examiner</b>        | <b>Art Unit</b>     |
|   | Ryan Dare              | 2186                |

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

THE REPLY FILED 14 August 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1.  The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a)  The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b)  The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2.  The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3.  The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
- (a)  They raise new issues that would require further consideration and/or search (see NOTE below);
  - (b)  They raise the issue of new matter (see NOTE below);
  - (c)  They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d)  They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4.  The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5.  Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
6.  Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7.  For purposes of appeal, the proposed amendment(s): a)  will not be entered, or b)  will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: \_\_\_\_\_.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8.  The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9.  The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10.  The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11.  The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attached.
12.  Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_
13.  Other: \_\_\_\_\_.

***Response to Arguments***

1. Applicant's arguments filed 8/14/06 have been fully considered but they are not persuasive.
2. With respect to Applicants arguments on pages 2-5, that Bik does not disclose all limitations of claim 1, the Examiner respectfully disagrees. On page 4, Applicant states "...Bik describes that its compiler detects loops that perform adjacent, non-unit stride memory-access operations, and transforms them into SIMD instructions" (lines 7-8). Applicant follows, "at no point does Bik describe that its compiler converts the source-code memory-access instruction into standard format access instructions." However, the Applicant stated above that the compiler converts non-unit stride memory access operations. It is the position of the Examiner that "non-unit stride memory access operations" are a type of "source-code memory access instructions". Further, it is also acknowledged by Applicant that the memory access instructions are transformed into SIMD instructions. It is the Examiner's position that SIMD instructions are a type of "standard format access instructions."
3. With respect to Applicants arguments on pages 4-5 that Bik does not teach "generating partitions containing the standard formatted memory access instructions", the Examiner respectfully disagrees. As can be seen in fig. 7, the standard formatted memory access instructions (the SIMD instructions "movaps Xmm0, [eax]" and "movaps Xmm1, [eax+16]") are separate partitions that when combined, achieve the store to memory array "a".

4. With respect to Applicants arguments on pages 5-8 that Bik does not disclose all limitations of claim 15, the Examiner respectfully disagrees. As explained above, Bik's compiler converts the source code memory access operations into standard format memory access instructions, i.e. SIMD instructions. The SIMD instructions contain a base address plus an offset. See fig. 7, the SIMD instruction "movaps Xmm1, [eax+16]". It contains a base address (eax) and an offset (16). The examiner has shown above how partitions are generated.

5. Claim 27 stands rejected for similar reasons as discussed above with claim 1.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan Dare whose telephone number is (571)272-4069. The examiner can normally be reached on Mon-Fri 9:30-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on (571)272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Ryan A. Dare  
August 24, 2006



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